#### **REMARKS**

This is in response to the Office Action mailed on June 24, 2004, and the references cited therewith.

Claim 4 has been amended. Claims 1-25 are now pending in this application.

## Objection to the Drawings

The drawings have been objected to under 37 CFR 1.83(a). A proposed replacement for Fig. 2 has been submitted herewith which has been amended in accordance with the examiner's suggestions. The specification has also been amended accordingly. No new matter has been entered. Applicant believes the amended figure overcomes the objection.

# §103 Rejection of the Claims

Claims 1, 2, 4-10, 20, 24 and 25 were rejected under 35 USC § 103(a) as being unpatentable over Kim et al. (U.S. Patent No. 6,029,086 and referred to herein as "Kim") in view of Adams et al. (U.S. Patent No. 4,589,420 and referred to herein as "Adams"). The rejections are traversed and reconsideration is respectfully requested.

The section 103 obviousness rejections of the claims stated in the office action rely upon the Kim reference teaching the detection of local peaks in a series of electrogram samples. Applicant does not believe such a teaching is present. The office action points to element 42 of Kim and the associated text as teaching a means for determining whether a sample represents a local peak or not. It appears to applicant from reading the text at col. 5, lines 5-13 and at col. 8, lines 1-4 of Kim, however, that the peak detector 42 is only a circuit element for determining the maximum value of a series of samples. Such a circuit element would obviously not function to determine when a series of samples changes slope. The office action also points to the text at col. 3, lines 4-8 of Kim as describing the computation of a local peak density in a consecutive number of samples. What the cited portion of Kim is actually discussing, however, is not a local peak density but rather the rate at which "deflections" are counted in a series of samples. As made clear elsewhere in the reference (e.g., at col. 6, lines 30-33), a "deflection" is only detected when the amplitude of the electrogram sample value exceeds the sensing threshold. Again,

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detection of whether the amplitude of a sample exceeds a certain threshold is not the same as detecting when a series of samples changes slope. The element 102 of Kim which the office action alleges to be a logic element for setting a noise flag based upon a computed local peak density is instead a decision element which acts based upon the rate at which deflections exceeding the sensing threshold are detected.

Applicant thus believes that, when properly interpreted, the Kim reference does not suggest the idea of detecting local peaks or computing a local peak density. Consequently, the recitations of independent claims 1 and 24 and the claims depending therefrom are not rendered obvious by the teachings of Kim when combined with those of the Adams reference. Withdrawal of the rejections is respectfully requested.

### Allowable Subject Matter

Applicant notes that claims 3, 11-19 and 21-23 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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#### Conclusion

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (847) 432-7302 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 10-25-04

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner of Patents, P.O. Box 1450,

Alexandria, VA 22313-1450, on this day of October, 2004.

Name

Signature

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
Serial Number: 10/643,770
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# **IN THE DRAWINGS**

An amended Fig. 2 is submitted herewith.